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# TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

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July 3, 2008

TO: Internal File

THRU: Daron Haddock, Permit Supervisor *DH*

FROM: Priscilla Burton, CPSSc, Environmental Scientist III, Team Lead *Priscilla Burton*

SUBJECT: Permit Application – Coal Hollow Mine, Alton Coal Development, LLC, Kane County, C/025/005, Task ID #2910,

## SUMMARY:

The Coal Hollow Mine plan was determined to be administratively complete on March 14, 2008 (2008/Outgoing/0001.pdf). Alton Coal Development, LLC provided public notice for the proposed mine on March 26 through April 16, 2008 in the Southern Utah News. The Division notified local, state, and federal governing agencies on March 19, 2008 (Outgoing/0002.pdf). The State Planning Coordinator, Mike Mower, was included in the distribution list. On March 31, 2008, the Southern Utah Wilderness Alliance (SUWA) was sent an electronic version of the agency notification letter. The Division received many comments in response to the public notice (see 2008/Incoming) and several requests were made for an informal conference. That conference was held June 16, 2008 in Alton, Utah.

The Division has one year to review the application and write the findings in support of permit issuance or in explanation of permit denial. A June 9 deadline for the technical review was initially set to provide an intermediate goal for technical staff. That deadline has been extended to allow for inclusion of comments during the Informal Conference.

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**TECHNICAL ANALYSIS:**

**GENERAL CONTENTS**

**IDENTIFICATION OF INTERESTS**

Regulatory Reference: 30 CFR 773.22; 30 CFR 778.13; R645-301-112

**Analysis:**

The applicant has met the requirements to provide ownership and control information for for the operation and surface lands affected in Chapter 1, Section 112. The applicant and operator is Alton Coal Development, LLC, a limited liability company. The company is registered with the Utah Department of Commerce (Confidential Binder, Appendix 1-1). The corporate office is in Cedar City. The telephone and address is provided. The list of company officers' names and addresses and percent ownership, and the employer identification number have been provided. Chris McCourt is the resident agent and manager. The application indicates that the company will be responsible for the abandoned mine fee, but the Rule requires that a person be designated. Please provide a name of the person who will be responsible for paying the abandoned mine fee.

Surface and coal ownership are displayed on Dwg. 1-3 and 1-4, respectively. Section 112.500 provides the names and addresses of the permit area surface owners. The permit area surface is owned by two parties: C. Burton Pugh and the Allecia Swapp Dame Trust, administered by Richard Dame, Trustee. Surface lands have been leased to the applicant. The lease assignments are included in the Confidential binder, Appendix 1-2. Dwg. 1-3 should clearly show the boundary between leased and unleased land owned by Pugh.

Section 112.500 also provides the name and addresses of the owners of the coal to be mined. All coal to be mined is privately held, and has been leased by Alton Coal. The leases are provided in the Confidential binder, Appendix 1-2. There is a small section of coal owned by the Bureau of Land Management (BLM) in the north portion of the permit area shown on Dwg. 1-4, but this coal will not be mined. Therefore the BLM is not listed in Section 112.500 as owner of the coal.

Adjacent surface and subsurface ownership is displayed on Dwg. 1-3 and 1-4. The applicant should define BLM coal ownership in the legend of Dwg. 1-4. Hatch marking has been used to indicate BLM land on the drawing, but this is not indicated in the legend. As stated

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in Section 112.600, the BLM and Darlynn and Arlene Sorensen own land contiguous to the permit area.

Interest in adjacent federal coal is outlined in Section 112.800. The applicant has filed a lease by application with the BLM. At this time, the BLM is writing an Environmental Impact Statement. The BLM has determined the size of the Alton Coal Tract LBA to be approximately 3,600 acres (BLM Open House, Salt Lake City, February 2007).

MSHA numbers for mine structures were not provided in the application. The application states that MSHA applications are pending.

### Findings:

The information provided does not meet the requirements of the Regulations for Identification of Interests. Prior to approval, the following information must be provided, in accordance with:

**R645-301-112.230**, The application indicates that the company will be responsible for the abandoned mine fee, but the Rule requires that a person be designated. Please provide a name of the person who will be responsible for paying the abandoned mine fee.

**R645-301-112.600**, Define BLM coal ownership in the legend of Dwg. 1-4. Currently, the legend indicates "no marking" to be BLM owned coal, but "hatch marking" has been used to indicate BLM land on the drawing. • Dwg. 1-3 should clearly show the boundary between leased and unleased land owned by Pugh.

**R645-301-112.700**, Provide MSHA numbers for mine associated structures.

**R645-301-112.800**, The Pugh lease includes coal and surface located east of the proposed permit area. This adjacent interest should be declared in the application, Section 112. 800.

## VIOLATION INFORMATION

Regulatory Reference: 30 CFR 773.15(b); 30 CFR 773.23; 30 CFR 778.14; R645-300-132; R645-301-113

### Analysis:

Section 113 of the application states that there are no violations, suspensions, revocations, or forfeitures on record for Alton Coal Resources, LLC., or its officers or affiliates. An Applicant Violator System check indicated that the company has not operated previously in

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the United States and that two of the officers have been previously engaged in coal mining operations. No violations were retrieved from the system on March 13, 2008.

**Findings:**

The applicant has met the requirements of the Rules for Violation Information.

**RIGHT OF ENTRY**

Regulatory Reference: 30 CFR 778.15; R645-301-114

**Analysis:**

The applicant has right of entry to 794.74 acres in T. 39 S., R. 5 W. Salt Lake Meridian, Sections 19, 20, 29, and 30. The application states that right of entry was obtained through lease agreement with the surface owners, Burton Pugh and Alecia Swapp Dame Trust. These agreements are found in the Confidential Binder, Appendix 1-2. Exhibit 1, the Pugh lease, was signed by Burton Pugh on September 10, 2004, but not by Roger Pugh or Margaret Moyers who together own 59.50% of the mineral interest beneath Burton Pugh surface (Section 112.500). Specific lands are described in the Pugh lease document, encompassing 732.78 acres. The Pugh lease includes coal located east of the permit area, but this was not declared in Section 112. 800. The Pugh lease was recorded with the Kane County Recorder on May 17, 2006.

Exhibit 2 of Appendix 1-2 is the the Dame Trust lease, which was signed by the Trustee, Richard Dame, on April 29, 2005. Specific lands are described in the Dame lease document, encompassing 61.96 acres. There is no statement of the date of this lease being recorded.

**Findings:**

The information provided does not meet the requirements of the Regulations for Right of Entry. Prior to approval, the following information must be provided, in accordance with:

**R645-301-114.100**, Exhibit 1, the Pugh lease, was signed by Burton Pugh, but not by Roger Pugh or Margaret Moyers who together own 59.50% of the mineral interest beneath Burton Pugh surface (Section 112.500). Please explain why all mineral owners are not signatories to the lease. • Please indicate the date that the Dame lease was recorded with the Kane County recorder.

## LEGAL DESCRIPTION AND STATUS OF UNSUITABILITY CLAIMS

Regulatory Reference: 30 CFR 778.16; 30 CFR 779.12(a); 30 CFR 779.24(a)(b)(c); R645-300-121.120; R645-301-112.800; R645-300-141; R645-301-115.

### Analysis:

The application provides a legal description for the 635.64 acre permit area in the public notice, Appendix 1-5. The permit area legal description matches the permit area (project area) shown on Dwg. 1-1. The land within the permit area is all privately owned surface. A public road runs through the permit area, County Rd. 136. The mining plan requires relocation of the public road, which is prohibited under UAC Section 40-10-24-(4)(c), unless an opportunity for public hearing is allowed, and a written finding is made, that the interests of the public and the landowners affected will be protected. The permit application must also contain the necessary approvals from the authority with jurisdiction over the public road and in this case, over the easement for the relocation of the public road onto federal land.

The permit boundary appears to be more than 300 feet from the Swapp Ranch house on the Richard and Alecia Dame Trust owned property. This assessment is based upon Dwg. 1-1 which is a USGS topographic map that has been enlarged to a scale of 1 inch = 1000 feet. The application must indicate whether the Swapp Ranch is within 300 ft. of the permit area and illustrate the distance on a map of a scale 1 inch = 100 ft. If the Swapp Ranch is within 300 feet of the mine permit boundary, the application must include a written waiver from the Richard and Alecia Dame Trust for mining within 300 feet of the Swapp Ranch. The Dame lease (included in Exhibit 2 of Appendix 1-2 confidential volume) provides right of entry to land adjacent to the Swapp Ranch, but does not clarify that the owner (Dame Trust) had the legal right to deny mining closer than 300 ft. to the dwelling, but waived that right.

Federal lands within T.39 S., R. 5 W., Salt Lake Meridian, were included in the petition for unsuitability in 1980 (Exhibit 2, Appendix 1-3). On December 16, 1980, Cecil Andrus, Secretary of Interior, designated lands to the northeast, east and southeast of the proposed permit area (in Ranges 2, 3, and 4 West) as unsuitable for underground and/or surface methods, in accordance with Section 522(a)(3)(B) of the Surface Mining Control and Reclamation Act (SMCRA). The "unsuitable" designation was made to protect fragile natural systems and to preserve the scenic beauty of at Bryce Canyon National Park and the park visitors' experience (Appendix 1-3, Exhibit 1).

The Secretary specified in items 5 and 6 of the unsuitability determination that any future specific mining plan or permit application for surface mining of the other federal lands in the Alton Coal field should be reviewed for visibility, vibration, and noise issues by the Department of Interior (through the National Park Service and the Office of Surface Mining) to determine whether specific conditions or stipulations should be placed on the permit. The Secretary

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stressed that the unsuitability designation was not “the only basis for protection of the values for which Bryce Canyon National Park was established,” and directed the Department of Interior to take Park values into account in future decisions on undesignated federal lands near the park. These issues are being reviewed by the BLM in the Draft Alton Coal Tract LBA Environmental Impact Statement (EIS).

UAC Section 40-10-24(1)(a) restates SMCRA Section 522(a)(4) and 522(a)(5) which requires that on non-federal lands, the board and the division have an obligation to establish a planning process enabling objective decisions based upon competent and scientifically sound data and information as to which, if any, lands in the State are unsuitable for mining. Such determinations should be integrated with the land use planning processes at the local and state and federal levels. UAC Section 40-10-24(1)(c) describes the unsuitability criteria that must be balanced against the economic impact in a cost-benefit analysis. They include incompatibility with current land use plans; the affect on fragile or historic and cultural lands; the affect on aesthetic values and natural systems; the affect on renewable resource lands, in particular the water supply and aquifer recharge; and areas subject to flooding or unstable geology. To date there have been no petitions for unsuitability and no determinations of unsuitability made for this (fee) coal mining proposal.

UAC Section 40-10-24(4) places prohibitions on mining in National Parks, designated Wild and Scenic Rivers, National Recreation Areas etc. Pertinent to this proposal is UAC, Section 40-10-24(4)(b) which prohibits adverse effects on historic sites unless approved jointly by the division and state or local agency with jurisdiction over the historic site. Many public comments received by the Division were concerned with affects of traffic, noise, dust, vibration on the designated Panguitch Historic District and the affects of truck traffic on safety on SR 89 and the tourist economy in Garfield County and Panguitch.

Lands to be disturbed by coal mining and reclamation are not “unsuitable” as defined by 40-10-24(4) of the Act. Coal mining and reclamation operations would not adversely affect any publicly owned park or any place included in the National Register of Historic Places (R645-103-326). Kane County Commissioner Habbeshaw commented that the Utah Heritage Act supports coal trucking on Hwy 89 (0063.pdf).

Public Lands Policy Coordinating Office (PLPCO) and State Historic Preservation Office (SHPO) were notified of the administrative completeness on March 19, 2008. PLPCO did not provide comment. SHPO provided concurrence (7/14/08) on the Cultural Resource Management Plan (CRMP) and data recovery plan for seven archaeological sites that will be adversely affected. Phase 2 of the CRMP pertains to Panguitch and the pending federal lease action. The CRMP is in Confidential App. 4-1.

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There will be an opportunity for public comment on socio-economic issues when the Bureau of Land Management DRAFT Environmental Impact Statement goes out for public review (expected date is August 2008).

Commenters may file an unsuitability claim under R645-103-237, for the proposed permit and the adjacent federal lease by application area. However, under R645-103-431.600, the Division may decide not to process the part of the pertaining to lands to which an administratively complete permit application has already been received. A petitioner must meet an "injury in fact" test as described by R645-103-421 and provide a description of the impact of the designation (R645-103-422.300 and R645-103-422.800). Petitioners should also keep in mind the criteria for designating land as unsuitable (R645-103-320).

### Findings:

A public road runs through the permit area. The mining plan requires relocation of the public road, which is prohibited under UAC Section 40-10-24-(4)(d), unless an opportunity for public hearing allowed. In response to several requests, a public hearing is planned on the relocation of the public road in accordance with R645-103-234.200 and R645-300-123.400.

**R645-300-141,** The application must identify the legal description of the land designated as permit area.

**R645-103-234.100,** The application must include the necessary approvals for road relocation from the authority with the jurisdiction over the public road and from the authority with jurisdiction over the easement for the relocated portion of the public road.

**R645-301-115.300,** The application must indicate whether the Swapp Ranch is within 300 ft. of the permit area and illustrate the distance on a map of a scale 1 inch = 100 ft.

**R645-103-235,** Should the Swapp Ranch be determined to be within 300 feet of the mine permit boundary, the application must include a written waiver for mining within 300 feet of a dwelling. The Dame lease included in Exhibit 2 of Appendix 1-2 confidential volume provides right of entry to adjacent land, but does not clarify that the owner has the legal right to deny mining closer than 300 ft. to the dwelling.

### PERMIT TERM

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**Analysis:**

The permit term of five years will allow for the three year mining plan and reclamation of the last 1000 ft. of highwall within a single permit term. The applicant has not requested a longer term. Section 116 of the application describes the acreage to be mined during each of the three years of mining activity. The disturbance sequence is shown on Dwg. 5-2. A total of 433 acres will be mined.

**Findings:**

The information provided meets the requirements for a five-year mining permit.

**PUBLIC NOTICE AND COMMENT**

Regulatory References: 30 CFR 778.21; 30 CFR 773.13; R645-300-120; R645-301-117.200.

**Analysis:**

A draft of the public notice was provided with the application in Appendix 1-5. A revised version of this notice appeared in the Southern Utah News from March 26 through April 16, 2008. A copy of the public notice, as it appeared, was sent to the Division by email on April 2, 2008 and was made part of the public record (2008/Incoming/0009.pdf). The notice indicated that the public comment period would run for 30 days after the last notice. i.e. until May 16, 2008. Within this timeframe, supportive comments were received from the Kane County Commission, Representative Mike Noel, Alton Mayor Claren Heaton, the Utah Mining Association and from 6 regional residents (from Kanab, St. George, Cedar City, and other unspecified locations). Supportive comments focused on the need for jobs and industry in the region and the need to provide for energy independence.

Also within this time frame, negative comments were received from 7 out of state residents (Alaska, Pennsylvania, Ohio, Nevada and unspecified locations); 8 regional residents (Kanab, St. George, Santa Clara, and other unspecified locations) and one housing subdivision corporation east of Bryce Canyon National Park and the organization Save Our Air & Resources (Richfield Utah); one Hatch resident; and 16 Panguitch business and homeowners whose main concerns were the affects to the tourist industry by the transportation of coal (300 trucks daily) in the SR 89 corridor (recently designated the "Mormon Pioneer Heritage Highway") and through the Panguitch National Historic District; the affects of coal truck traffic on safety; the affect of particulates on visibility and the affect of lighting on the night sky; the displacement of wildlife; the affects to water resources from selenium and mercury; and the affects of a haul route through Alton. Three of these petitioners requested an informal conference based upon these issues.



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The Division's agency notification letter (2008/Outgoing/0002.pdf) indicated the comment period would end on May 22, 2008 (not realizing how quickly the public notice would be published). Consequently, several more comments were received by May 22, including comments from the Southern Utah Wilderness Alliance, 13 southwestern region residents (Kanab, Cedar City, and unspecified), 4 Panguitch residents, 2 Hatch residents, and 2 Alton residents, all of whom were not in favor of the proposal. Three of these commenters requested an informal conference. In addition, the SUWA requested "Consulting Party Status" for cultural resource management.

Also received by May 22 was a supportive comment from one individual from the Southwestern region of Utah whose location was unidentified. In all 43 comments were received on or before May 22, 2008.

The Division has provided public notice in the Garfield County News and the Southern Utah News two weeks prior to the informal conference. In addition, each commenter was notified individually of the conference.

The Division has received comments with regard to this specific Coal Hollow application, for development of fee coal, from the following agencies:

- Powell Ranger District of the Dixie National Forest (2008/Incoming/0048.pdf)  
The USFS Service expressed the same concerns as the community: that the area is of importance for tourism, that the traffic on SR 89 is made up of large recreational vehicles traveling to Bryce Canyon N.P., Zion N. P., and the Grand Canyon N.P; that the Class I air shed should not be degraded, since the night sky quality was part of the visitor experience and tourism makes up 60% of the economy.
- Office of Surface Mining (2006/Incoming/0008.pdf) stated that no federal mine plan approval was required.
- State Historic Preservation Office (2007/Incoming/0022.pdf)  
The Division has been coordinating the UAC 9-9-404 review of this project with SHPO and has contracted with PLPCO for an archaeological review of the PAP.

The Governor's Resource Development Coordinating Council also had a public/agency comment period. The RDCC did not provide any comments to the Division.

**Findings:**

The information provided by the Applicant has met the requirements for public notification. The Division is attempting to fulfill its requirement to include the public in the permitting process.

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## **FILING FEE**

Regulatory Reference: 30 CFR 777.17; R645-301-118.

### **Analysis:**

This \$5.00 fee was paid with the application.

### **Findings:**

The Applicant has met the requirements of the filing fee.

## **PERMIT APPLICATION FORMAT AND CONTENTS**

Regulatory Reference: 30 CFR 777.11; R645-301-120.

### **Analysis:**

Appendix 1-6 contains a statement of the mine permit application's veracity and accuracy from Chris McCourt, the manager and resident agent for Alton Coal Development, LLC. The information provided is in a format prescribed by the Division.

### **Findings:**

The information provided is in a format prescribed by the Division and meets the requirements of R645-301-121.300. Elsewhere in this technical analysis, the Division makes requests for further information or requests clarification.

## **REPORTING OF TECHNICAL DATA**

Regulatory Reference: 30 CFR 777.13; R645-301-130.

### **Analysis:**

In most cases analytical data is accompanied by the names of the individuals or firms responsible for collection and/or analysis of the data. One exception is the Laboratory Analytical Report provided in Appendix C of App. 2-1 for report dated 04/24/07 under work order C07040226.

**Findings:**

**R645-301-131**, Please provide the name and contact information for the laboratory providing soils report dated 042407 under work order C070402276.

**COMPLETENESS**

Regulatory Reference: 30 CFR 777.15; R645-301-150.

**Analysis:**

The first application was received on June 27, 2006 and was determined incomplete on August 22, 2006. The second application was received on June 14, 2007 and was determined incomplete on August 27, 2007. Supplemental information to the June 14, 2007 application was received on January 24, 2008. The Applicant was notified that the application package (combined information received June 14, 2007 and on January 24, 2008) was considered complete on March 14, 2008 (2008/Outgoing/ 0001.pdf and 0001a.pdf).

**Findings:**

The Applicant has met the completeness requirements.

**ENVIRONMENTAL RESOURCE INFORMATION**

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

**GENERAL**

Regulatory Reference: 30 CFR 783.12; R645-301-411, -301-521, -301-721.

**Analysis:**

Approximately 7,000 ft. elevation, gently sloping land vegetated with Utah juniper, pinyon pine, big sagebrush and wet meadows. Lower Robinson Creek (runs east west on the north of permit area). Sink Valley Wash (runs north south on the east of the permit area). There are several springs and agricultural ponds on eastern boundary of the proposed permit area. The average annual precipitation is 16.43 inches, evenly distributed throughout the year. The current and post mining land use is undeveloped rangeland (wildlife) and livestock pasture (grazing).

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**Findings:**

The information provided meets the requirements of the Rules for general resource information.

**SOILS RESOURCE INFORMATION**

Regulatory Reference: 30 CFR 783.21; 30 CFR 817.22; 30 CFR 817.200(c); 30 CFR 823; R645-301-220; R645-301-411.

**Analysis:**

The application includes a non-prime farmland determination by the NRCS in Appendix 2-1, Section 1). The Order II soil survey in Appendix 2-1 includes field description of soil pits, laboratory analysis of samples taken by horizon, and a soil map (Dwg 2-1). The soil survey classifies the soil into thirteen family map units. These map units are described in the text (Section 222.200) and representative pedons are provided for each unit. Sections Two and Three of Appendix 2-1 provide greater detail on the classification and naming of the soils and the typifying pedons for the soils. Productivity estimates are provided in Section 321.200. Topsoil and subsoil will be salvaged for use in reclamation, no substitute or borrow soils will be needed.

**Findings:**

The information provided meets the requirements for baseline soil survey information as required by the R645 Coal Rules.

**ALLUVIAL VALLEY FLOORS**

Regulatory Reference: 30 CFR 785.19; 30 CFR 822; R645-302-320.

**Analysis:**

**Alluvial Valley Floor Determination**

This section was completed jointly by team members, under a separate memo.

**Applicability of Statutory Exclusions**

### **Findings:**

See findings in memo to Daron Haddock, from the Priscilla Burton and Coal Hollow Review team, dated August 26, 2008.

### **PRIME FARMLAND**

Regulatory Reference: 30 CFR 785.16, 823; R645-301-221, -302-270.

### **Analysis:**

The Natural Resources Conservation Service evaluated the soils of the proposed permit area for prime farmland status in the fall of 2006. The NRCS concluded that there were no prime farmland soils in the permit area, however soils on slopes less than 14 percent could qualify a Soils of Statewide Importance, if irrigated (Appendix 2-1, Tab 6 and M:0250005\2006Incoming\0011.pdf). **IS THERE ANY PROTECTION FOR SOILS OF STATEWIDE IMPORTANCE?**

The land has historically been used for agriculture. App 7-1, p. 9, provides a description of the agricultural use of lands within and adjacent to the permit area by cattle and for crop production. The agricultural use description includes a reference to maps, Drawing 3-1 in Chapter 3 and Drawing 7-7 in Chapter 7 that show the locations of existing undeveloped rangeland, subirrigated lands, crop lands and pastures. The Applicant states that the representation of subirrigated lands on Dwg. 7-7 does not include approximately 20 acres of dry meadows shown in Plate 3-1 on the west side of County Road 136. These dry meadows may also be subirrigated (pp. 10 and 12, App. 7-7).

Both landowners, Pugh and Dame, have leased to Alton Coal Development, LLC., lands within the permit area that are designated pastureland or subirrigated meadow lands (Dwg. 3-1 and 7-7). Seven hundred (700) bushels/acre of potatoes were raised with irrigation on the Pugh property in 1917 and in the 1950's oats and wheat crops were produced (personal communication with C. Burton Pugh, September 6, 2006). How long the Pugh lands have been out of production is not known.

Within the permit area, Richard Dame's property is designated pasture land (Dwg 3-1). Dame runs cattle on his property (personal communication with Richard Dame, September 6, 2006).

Appendix 7-7, Sec. 4.1 describes irrigation and pastureland outside of the permit area.

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**Findings:**

The Division, in consultation with the NRCS, finds that there are no prime farmlands in the permit area.

## **OPERATION PLAN**

### **AIR POLLUTION CONTROL PLAN**

Regulatory Reference: 30 CFR 784.26, 817.95; R645-301-244, -301-420.

**Analysis:**

The Applicant is required to obtain an Air Quality Approval Order prior to receiving a permit to mine. The first step in acquiring an Air Quality Approval Order is to file a Notice of Intent with the Utah Division of Air Quality (DAQ).

One comment received indicated that the Applicant had not filed a Notice of Intent with the Utah Division of Air Quality (DAQ). However, the Permit Application Package indicates that Alton Coal Development, LLC provided the DAQ with a Notice of Intent (NOI) on May 8, 2007 (Section 422 and Appendix 4-2). On July 2, 2008, Maung Maung of the DAQ confirmed that the NOI had been received in May 10, 2007, and review is pending.

Several comments were received during the public comment period and during the informal conference that the ambient and fugitive dust might degrade the characteristic clear skies of the area; that the fugitive dust might affect water quality of nearby streams and perhaps the groundwater; and that uncovered haul trucks might leave coal fines in their wake. These concerns should be addressed by the Applicant's fugitive dust control plan and the monitoring plan for evaluation of that fugitive dust control plan to control air pollution attendant to soil erosion (R645-301-244.100) and to prevent, minimize and control sediment contributions to streams (R645-301-526.220, *et seq*). However, the Division did not find that the Applicant's fugitive dust control monitoring plan provided enough specific detail to allow Division evaluation and enforcement of the dust control plan.

The application states in Section 521.168 (pg. 5-15) that there are "no specific air pollution collection or control facilities proposed." The Applicant's air pollution control plan is outlined in Section 423.100 – 200, as follows:

- seeding open stockpiles

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- contemporaneous reclamation of mined out areas
- water sprays or chemical treatment on unpaved roads and operational areas.
- monitoring as described on pages 8 – 10 of the NOI prepared for the DAQ.

The Applicant refers to pages 8 – 10 of the NOI, Limitations and Test Procedures Items 9 - 17, (Appendix 4-2) for compliance with R645-301-423 (air pollution control plan), R645-301-423.100 (air quality monitoring program), and R645-301-423.200 (plan for fugitive dust control practices). This is unacceptable, because, the NOI does not require regular monitoring of all sources of visible emissions by the Applicant.

Items 9 and 10 of the NOI only specify that fugitive dust from traffic along haul roads is not to exceed 20% opacity as measured using Method 9. This monitoring is to be performed by the DAQ Executive Secretary's representative. The NOI does not specify how visible emissions from crushers, screens, conveyor transfer and drop points, diesel engines and all other points will be monitored.

Item 11 of the NOI specifies record keeping and calculation of production limits on a rolling 12 month period, not to exceed 2,000,000 tons/yr.

Item 12 of the NOI specifies record keeping for water sprays applied to haul roads when the temperature is above freezing. The NOI indicates the records will be made available to the DAQ upon request. Items 13 and 15 of the NOI specifies length of haul road (not to exceed 7900 ft.); haul road speed limit not to exceed 15 mph; coal stockpile acreage not to exceed 3.35 acres; overburden storage piles not to exceed 60 acres. Item 14 of the NOI specifies that the open mining area shall not exceed limits established by the DOGM. This is not acceptable, because DOGM does not evaluate the size of the open pit in relation to fugitive dust and because without an indication of the size of the open pit area, the DAQ can not accurately calculate fugitive dust emissions. Therefore, the NOI should describe the dimension of the open pit areas.

Item 16 of the NOI describes the maximum sulfur content (0.5%) of the diesel fuel for all equipment. Item 17 requires maintenance and operation of equipment in compliance with R307-150 and R307-107 and describes that the DAQ Executive Secretary will determine whether acceptable practices are being used.

The NOI and the Air Quality Approval Order are tools used by the DAQ to promote compliance with the Clean Air Act. The terms of the NOI are monitored by the DAQ and enforced by the DAQ. Since the monitoring and evaluation requirements of R645-301-423 et seq, for surface mines producing greater than 1,000,000 tons/year will be enforced by the Division, the monitoring and evaluation plan must be clearly stated in the permit application, provided in the Annual Report, and available to the Division inspectors. The monitoring and evaluation plan should include provisions for controlling fugitive dust and coal fine deposition to control pollution attendant to erosion (R645-301-244.100) and to protect water quality (R645-

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301-526.221 and 526.222) from the open stockpiles, from the coal stockpile, from crushers, screens, conveyor transfer and drop points.

**Findings:**

The information provided in the application does not meet the requirements of the Air Quality rules. Prior to approval, please provide the following, in accordance with:

**R645-301-423 *et seq***, The Applicant refers to pages 8 – 10 of the NOI, Limitations and Test Procedures, (Appendix 4-2) for compliance with R645-301-423, the air pollution control plan, and R645-301-423.100, the air quality monitoring program to evaluate the effectiveness of the fugitive dust control practices proposed and R645-301-423.200, the plan for fugitive dust control practices. This is unacceptable, because, the NOI does not require regular monitoring of visible emissions by the Applicant. The NOI and the Air Quality Approval Order are tools used by the DAQ to promote compliance with the Clean Air Act. The terms of the NOI are monitored by the DAQ and enforced by the DAQ. Since the monitoring and evaluation requirements of R645-301-423 *et seq*, for surface mines producing greater than 1,000,000 tons/year will be enforced by the Division, the monitoring and evaluation plan must be clearly stated in the permit application, with the results provided in the Annual Report, and available to the Division inspectors. The monitoring and evaluation plan should include provisions for monitoring and controlling fugitive dust and coal fine deposition by the Applicant to control pollution attendant to erosion (R645-301-244.100) and to protect water quality (R645-301-526.221 and 526.222) from the open stockpiles of overburden, from coal stockpiles, from crushers, screens, conveyor transfer and drop points. The plan should indicate that the monitoring information and accompanying summary evaluation of emissions will be provided in the Annual Report, and be available to the Division inspectors upon request.

## TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-230.

**Analysis:**

**Topsoil Removal and Storage**

Mine pits and mining sequence are described in Section 523. Overburden removal is shown on Dwg 5-16. Operational sequence and contemporaneous reclamation sequence is shown on Dwg 5-17 through 5-19.



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The topsoil salvage operation is described in Section 231.100 through Section 233.100-400 and in Section Four of Appendix 2-1. Table 4-2 of Section Four in Appendix 2-1 provides the average topsoil salvage depth and the subsoil salvage depth by map unit. The topsoil salvage depth ranges from 5 to 10 inches. Subsoil suitability varies due to high pH, clay content, and carbonate accumulations. The suitable subsoil salvage depth ranges from 1 to 55 inches. Due to this wide variation in suitability of subsoil the application states that topsoil and subsoil salvage will be monitored by a certified soil professional (Section 231.100 and Appendix 2-1, pg. 4-2). Page 4-1 of Appendix 2-1 suggests that poor soil is indicated by pH greater than 8.5, EC less than 4.0, and SAR less than 4. These latter two criteria (EC, SAR) do not reflect the criteria for poor soil described in Table 4-1, which does reflect the UDOGM soil suitability criteria. Please correct the narrative accordingly, so that the basis for subsoil suitability and salvage is clear.

Dwg. 2-2 indicates salvage and stockpiling from less than half of the permit area, with the rest of the topsoil being live-hauled to contemporaneous reclamation sites. Table 4-5 provides the expected topsoil and subsoil recovery by year and acreage disturbed. Tables 4-3.1, 4-3.2, 4-3.3 provide similar information by map unit and acreage. Table 4-4 provides topsoil and subsoil salvage for facilities construction. According to plan (Section 232.500), topsoil and subsoil from year one facilities construction areas will be stockpiled as shown on Drawing 2-2.

Three topsoil stockpiles and a subsoil pile will be located as shown on Drawing 2-2. Dwg. 2-2 describes the average depth and footprint area for each stockpile. From the information on Dwg 2-2, the combined volume of topsoil stored in stockpiles is 302,000 cu yds, of which 188,000 cu yds is topsoil. Stockpiled soil will be placed such that side slopes will not exceed 3h:1v and the piles will be bermed. The piles will be seeded with an interim mix. The Applicant must describe the interim seed mix by species and planting rates. (Final seed mixes are provided in Tables 3-37 through 3-42 for the plant communities, but an interim mix could not be located.)

**Findings:**

The information provided in the application does not meet the requirements of the R645 Coal Rules for Soils Handling Operation Plan. Prior to approval, please provide the following, in accordance with:

**R645-301-231.100**, Page 4-1 of Appendix 2-1 suggests that poor soil is indicated by pH greater than 8.5, EC less than 4.0, and SAR less than 4. These latter two criteria (EC, SAR) do not reflect the criteria for poor soil described in Table 4-1, which does reflect the UDOGM soil suitability criteria. Please correct the narrative accordingly, so that the basis for subsoil suitability and salvage is clear.

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**R645-301-234.230**, The Applicant must describe the stockpile interim seed mix by species and planting rates.

## HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

### Analysis:

#### General

#### **Acid- and Toxic-Forming Materials and Underground Development Waste**

Only the alluvial surface 30 feet of overburden is being considered for surface placement, according to Section 232.720. Section C Appendix 2-1 show all surface soil analysis of hot water soluble selenium below limits of detection, 0.02 mg/kg. Appendix 6-2 shows selenium content of less than 0.10 mg/kg in the overburden cores using method SW6020 for water soluble selenium, with the exception of the zone below the coal and below 35 feet in the vicinity of CH-06-05, where insufficient sample provides no information on selenium levels and/or high levels of selenium in the lower zones of overburden require special handling. A deficiency was written to request information describing how the selenium in the zone below the coal would be isolated from groundwater in final reclamation.

Section 731 describes the measures to be taken to protect the surface and ground water from wash water, chemicals, fuels, and oils and from sediment load. However, the plan suggests in Section 358.530 that there may be ponds containing hazardous concentrations of acid/toxic forming materials. Please provide further description of the characteristics of the hazard. I.e. Does the applicant expect run off from the Tropic Shale to form saline/sodic ponded water?

### Findings:

**R645-301-731.300**, The plan suggests in Section 358.530 that there may be ponds containing hazardous concentrations of acid/toxic forming materials. Please provide a reference to the Sections in the application where further description of the characteristics of the expected hazard can be found. I.e. Does the applicant expect run off from the Tropic Shale to form saline/sodic ponded water? Also, please provide a reference to the Section of the application that describes the plans for identification, storage and burial of the hazard. • Appendix 6-2 unacceptable levels of selenium in the zone below the coal and in the vicinity of CH-06-05, below 35 ft. where either

insufficient sample provides no information on selenium levels or high levels of selenium were recorded. Please explain how overburden below 35 ft represented by CH-06 cores analyses and the zone below the coal will be isolated from groundwater during final reclamation. [PB]

## RECLAMATION PLAN

### GENERAL REQUIREMENTS

Regulatory Reference: PL 95-87 Sec. 515 and 516; 30 CFR Sec. 784.13, 784.14, 784.15, 784.16, 784.17, 784.18, 784.19, 784.20, 784.21, 784.22, 784.23, 784.24, 784.25, 784.26; R645-301-231, -301-233, -301-322, -301-323, -301-331, -301-333, -301-341, -301-342, -301-411, -301-412, -301-422, -301-512, -301-513, -301-521, -301-522, -301-525, -301-526, -301-527, -301-528, -301-529, -301-531, -301-533, -301-534, -301-536, -301-537, -301-542, -301-623, -301-624, -301-625, -301-626, -301-631, -301-632, -301-731, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-732, -301-733, -301-746, -301-764, -301-830.

#### Analysis:

The reclamation plan described in Section 542 is contemporaneous with the operation plan described in Section 528. Overburden removal is shown on Dwg 5-16. Operational sequence and contemporaneous reclamation sequence is shown on Dwg 5-17 through 5-19. The reclamation sequence is shown on Dwg. 5-38. Mining pits will be reclaimed within 180 days of coal removal or 1,500 ft. of active coal face. An excess spoil pile will cover 87 acres at final reclamation and rise 100 ft above the original contour. All reclaimed slopes will be 3h:1v. The surface four feet of all reclaimed surfaces will be replaced topsoil and subsoil. The post mining land use is grazing land or pastureland.

#### Findings:

Specific findings for reclamation are addressed by dicipline below.

### TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-240.

#### Analysis:

##### Redistribution

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Reclamation slopes will not exceed 3h:1v (Sec. 242.130(c)). Prior to topsoil placement, slopes will be smoothed (Sec. 242.110) and treated if necessary to reduce slippage of redistributed topsoil and subsoil (Sec. 242.200). Rubber tired equipment will be minimized on regarded slopes (Sec. 242.120). Dozers and scrapers will be used to replace the topsoil and subsoil to a depth of four feet that will be comprised of 6 – 12 inches of topsoil and the remainder subsoil (Sec. 5 App. 2-1 and Sec. 240). Soil replacement thickness will be checked using a GPS system (Sec. 242.110). After soil placement, soils will be sampled for fertility and salinity with 1 sample taken per four acres (Sec. 243). Areas of compaction due to heavy equipment will be ripped, disked, and harrowed prior to seeding. Areas that are not compacted will be roughened slightly with dozer tracks prior to seeding. Soil amendments will be applied over the seed bed surface. Seeding will occur immediately after tracking and mainly in the spring or fall. (Sec. 242.120 (b)).

The Applicant has made several commitments to test subsoil materials during removal to ensure that the reclaimed surface provides a suitable rooting medium to a depth of four feet. The following commitments are appropriate, but in each case, the commitment should include the rate of sampling, i.e. number of samples to be taken by ton or by cubic yardage moved.

“All substitute subsoil will be tested for pH, conductivity, SAR, percent lime and texture, prior to salvage and stockpiling.” Sec. 232.500

“ACD will monitor pH, conductivity, texture and percent lime in the field during mining operations to ensure that only materials with good or fair suitability are placed in the upper 4 feet of the reclamation soil profile...” Sec. 5, pg. 5-3, App. 2-1

“If additional materials are needed, the Alton Coal Development will salvage suitable overburden for use as a substitute subsoil material from the zone below...to a depth of 30 feet, excluding any Tropic shale materials. ACD will do additional sampling to identify the zones in which suitable materials occur for maximum salvage potential of substitute subsoil. Representative overburden samples will be analyzed for pH, conductivity, SAR, percent lime, and texture.” Sec. 232.720

The Applicant has stated that 90% of the subsoil used to construct the four foot cover depth will be of good to fair quality with respect to pH and lime characteristics. The applicant further states, “No subsoil or overburden with unacceptable characteristics will be placed within 48 inches of the reclamation surface.” Sec. 5 pg. 5-2 App. 2-1. It is understood that the unacceptable characteristics are defined in the DOGM Guidelines for Topsoil and Overburden Handling, as reproduced in Table 4-1, Sec. 4, App. 2-1.

**Findings:**

The information provided in the application does not meet the requirements of the R645 Coal Rules for Soils Redistribution Plan. Prior to approval, please provide the following, in accordance with:

**R645-301-232.500**, Commitments made concerning topsoil and subsoil sampling in Sec. 232.500; Sec. 5, pg. 5-3, App. 2-1; and Sec. 232.720 are appropriate, but in each case, the commitment should include the rate of sampling, i.e. number of samples to be taken by ton or by cubic yardage moved. • Overburden monitoring described in Sec. 5, pg. 5-3, App. 2-1 should include SAR analysis. [PB]

**R645-301-242.200**, Section 242.110 should indicate that the slopes will be roughly graded prior to subsoil and topsoil application, rather than a smooth surface.[PB]

**R645-301-244.100**, The application must describe the use of surface roughening, wood fiber mulch and tackifier on all stockpiles (spoil, topsoil and subsoil piles)  
• Section 242.120 (b) must describe seeding, and an application of wood fiber mulch and tackifier immediately following topsoil application, regardless of season. • Section 244.200 must describe the mulch application by type of mulch, application method, and application rate for each land use. [PB]

## CONTEMPORANEOUS RECLAMATION

Regulatory Reference: 30 CFR Sec. 785.18, 817.100; R645-301-352, -301-553, -302-280, -302-281, -302-282, -302-283, -302-284.

**Analysis:**

**General**

Rough backfilling and grading is required for surface mining under R645-301-553. Operational sequence and contemporaneous reclamation sequence is shown on Dwg 5-17 through 5-19. The application describes contemporaneous reclamation of the pits in Section 528.200 and Section 542. The applicant requests a variance from reclamation in the 180 day period for the 8<sup>th</sup> pit as described in Section 542. Further discussion and a deficiency is written on this issue under R645-301-553, Backfilling and Grading.

**Findings:**

Further discussion and a deficiency is written on this issue under R645-301-553, Backfilling and Grading.

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## STABILIZATION OF SURFACE AREAS

Regulatory Reference: 30 CFR Sec. 817.95; R645-301-244.

### Analysis:

Stockpiled topsoil and subsoil will be bermed and seeded. These stockpiles cover 17.53 acres (Dwg. 2-2).

Areas adjacent to primary roads will be stabilized and vegetated (Sec. 526.400).

Haul roads will be watered or be treated with dust suppressants and a 15 mph speed limit will be imposed (Sec. 526.400 and App. 4-2).

Slopes of the contemporaneous reclaimed acreage will be less than 3h:1v and will be seeded and mulched after topsoil placement. Lands reclaimed to pasture will not be mulched, however (Sec. 244.200). Grass matting may also be used (Sec. 242.130 (c)) and a variety of techniques and materials may be used depending on the reclaimed area (Sec. 244.200).

Stabilization of the overburden/excess spoil stockpile created from mining Pits 1 – 8 and as mining progresses from Pits 9 – 15 is described in Sec. 528.200. The regarding of the excess spoil to a 3h:1h slope is described in Sec. 528.310. The replacement of the topsoil and subsoil on the excess spoil is described in Sec. 528.310 on page 5-39. The timetable for reclamation provided in Section 542 is specific about the mined out area, but not the spoil pile. The application should specify that seeding and mulching of the excess spoil pile will be contemporaneous with the staged approach to building the pile. i.e., First the 2.7 million cubic yards from Pits 1 – 8 will be seeded and mulched immediately after regarding and the additional 2,500 feet extension of the excess spoil pile from Pits 9 – 15 will be reclaimed contemporaneously as well.

Treatment of rills and gullies is described in Section 244.200. The commitment provided in Section 244.320 (b) does not meet the requirements of the Coal Rules. The commitment must include replacement of topsoil and reseeding or replanting.

### Findings:

The information provided in the application does not meet the requirements of the R645 Coal Rules for Soil Stabilization. Prior to approval, please provide the following, in accordance with:

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**R645-301-234.230,** The replacement of the topsoil and subsoil on the excess spoil is described in Sec. 528.310 on page 5-39. The timetable for reclamation provided in Section 542 is specific about the mined out area, but not the spoil pile. The application should specify that seeding and mulching of the excess spoil pile will be contemporaneous with the staged approach to building the pile.[PB]

**R645-301-244.320,** The commitment to repair rills and gullies provided in Section 244.320 (b) must include replacement of topsoil and reseeding or replanting. [PB]

## CESSATION OF OPERATIONS

Regulatory Reference: 30 CFR Sec. 817.131, 817.132; R645-301-515, -301-541.

### **Analysis:**

Information provided in the application Section 515 mimics the Coal Rules and therefore meets the requirements.

### **Findings:**

Information provided in the application Section 515 mimics the Coal Rules and therefore meets the requirements for Emergency and Temporary Cessation Reporting.

### **RECOMMENDATIONS:**